WHAT IS CLAIMED IS:

1. A photothermographic material comprising an image forming layer containing at least a photosensitive silver halide, a non-photosensitive organic silver salt, a reducing agent and a binder on the same surface of a support, wherein the photothermographic material contains:

a compound having an adsorption group to silver halide and a reducing group, or a precursor of the compound; and

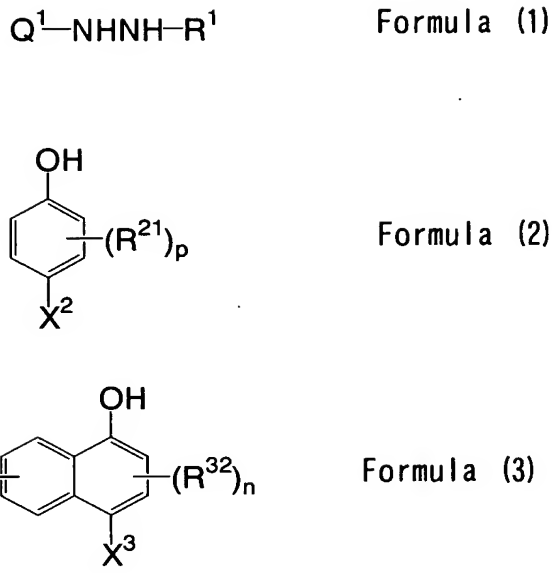
a development accelerator.

2. The photothermographic material according to claim 1, wherein the compound having an adsorption group to silver halide and a reducing group is represented by the following formula (I):

A-(W)n-B formula (I)

wherein, in the formula, A represents an atomic group containing a group capable of adsorbing to silver halide, W represents a divalent linking group, n represents 0 or 1, and B represents a reducing group.

3. The photothermographic material according to claim 1, wherein the development accelerator is at least one selected from compound groups represented by the following formulae (1), (2) and (3):



Formula (1)

Formula (2)

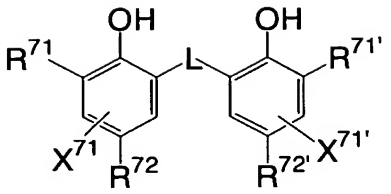
Formula (3)

wherein:

in formula (1), Q^1 represents a 5 to 7 membered unsaturated ring capable of bonding to NHNH-R^1 through a carbon atom; R^1 represents a carbamoyl group, an acyl group, an alkoxycarbonyl group, an aryloxycarbonyl group, a sulfonyl group or a sulfamoyl group; and

in formulae (2) and (3), X^2 and X^3 each independently represent a hydrogen atom or a substituent; R^{21}, R^{31} and R^{32} each independently represent a hydrogen atom or a substituent capable of substitution; m and p each independently represent an integer from 0 to 4; and n represents an integer from 0 to 2.

4. The photothermographic material according to claim 1, wherein the reducing agent is represented by the following formula (7):



Formula (7)

wherein, in formula (7), R^{71} and $R^{71'}$ each independently represent an alkyl group having 1 to 20 carbon atoms; R^{72} and $R^{72'}$ each independently represent a hydrogen atom or a group capable of substituting for a hydrogen atom on a benzene ring; X^{71} and $X^{71'}$ each independently represent a hydrogen atom or a group capable of substituting for a hydrogen atom on a benzene ring; L represents a -S- group or $-CHR^{73}-$ group; and R^{73} represents a hydrogen atom or an alkyl group.

5. The photothermographic material according to claim 1, wherein a silver iodide content of the photosensitive silver halide is 5% by mole or more.

6. The photothermographic material according to claim 5, wherein the silver iodide content of the photosensitive silver halide is 40% by mole or more.

7. The photothermographic material according to claim 1, wherein the photothermographic material is exposed to a laser beam.

8. The photothermographic material according to claim 7, wherein the laser beam has a wavelength of 350 nm to 450 nm.

9. The photothermographic material according to claim 7, wherein a light source of the laser beam is a blue laser diode.

10. A photothermographic material comprising, on a support, at least a photosensitive silver halide, a non-photosensitive organic silver salt, a reducing agent and a binder, wherein:

1) the photothermographic material contains a compound having an adsorption group to silver halide and a reducing group, or a precursor of the compound;

2) the non-photosensitive organic silver salt contains silver behenate in an amount of not less than 80% by mole; and

3) the binder has a glass transition temperature (Tg) of 45°C or less.

11. The photothermographic material according to claim 10, wherein the non-photosensitive organic silver salt contains silver erucate in an amount of from 1.0×10^{-6}% by mole to 0.4% by mole.

12. The photothermographic material according to claim 10, wherein the binder is a polymer latex synthesized by using a polymerization initiator in an amount of 0.3% by weight to 2.0% by weight based on a total amount of monomers.

13. The photothermographic material according to

claim 10, wherein a silver iodide content of the photosensitive silver halide is 5% by mole or more.

14. The photothermographic material according to claim 13, wherein the silver iodide content of the photosensitive silver halide is 40% by mole or more.

15. A photothermographic material comprising, on a surface of a support, at least a photosensitive silver halide, a non-photosensitive organic silver salt, a reducing agent and a binder, wherein the photothermographic material contains: a compound having an adsorption group to silver halide and a reducing group, or a precursor of the compound; and at least one compound represented by the following formula (H):

$$Q\text{-}(Y)_n\text{-}C(Z_1)(Z_2)X$$

wherein, in formula (H), Q represents an alkyl group, an aryl group or a heterocyclic group; Y represents a divalent linking group; n represents 0 or 1; Z_1 and Z_2 each independently represent a halogen atom; and X represents a hydrogen atom or an electron attracting group.

16. The photothermographic material according to claim 15, wherein the compound represented by formula (H) has a melting point of 170°C or less.

17. The photothermographic material according to claim 15, wherein Q represents a heterocyclic group in

formula (H).

18. The photothermographic material according to claim 15, wherein the compound represented by formula (H) is contained in an amount of 1×10^{-2} mole to 5×10^{-2} mole per one mole of the non-photosensitive organic silver salt.

19. The photothermographic material according to claim 18, wherein the compound represented by formula (H) is contained in an amount of 1×10^{-2} mole to 3×10^{-2} mole per one mole of the non-photosensitive organic silver salt.

20. The photothermographic material according to claim 15, wherein a silver iodide content of the photosensitive silver halide is 5% by mole or more.

21. The photothermographic material according to claim 20, wherein the silver iodide content of the photosensitive silver halide is 40% by mole or more.